



Portland Harbor Superfund Site Update

For Lower Columbia Basin PCB Workshop - July 2009

Portland Harbor Superfund Site was added to the EPA National Priorities List in December 2000. More than a century of industrial use left river sediments contaminated with many different hazardous substances, including polychlorinated biphenyls (PCBs), heavy metals like mercury, polycyclic aromatic hydrocarbons (PAHs), dioxin/furans and pesticides. EPA is responsible for overseeing the in-water investigation and cleanup while Oregon DEQ is the lead for addressing upland sources of contamination to the river. The area between downtown Portland, Oregon and the mouth of the Columbia Slough is being studied. Final Superfund site boundaries will be established in the Record of Decision based on EPA's analysis of the nature and extent of contamination.

Remedial Investigation nearing completion: In early 2008, data collection for the remedial investigation and baseline risk assessment was completed. This information filled remaining data gaps that were identified for the site, including stormwater, surface water (high and low flow events), biota sampling, bioassays with co-located sediment samples and upstream and downstream areas. The data from these final sampling events has been analyzed so that it can be included in the Remedial Investigation (RI) Report, which is expected to be submitted to EPA in fall of 2009.

Human Health and Ecological Risk Assessment Reports: Draft risk assessment reports will be ready in late summer 2009. Human health risks are based on what people do and are likely to do at Portland Harbor in order to protect everyone who could come in contact with chemicals, including those people that would be expected to have the highest risks. Ecological risks include exposure to fish, wildlife and benthic life.

Feasibility Study: Most of the work for the rest of 2009 and beyond is related to the Feasibility Study (FS). The FS uses information from the RI and risk assessment to develop sediment cleanup levels, identify areas that may require cleanup, and develop and screen cleanup options for Portland Harbor. Assessing contaminant mobility and identifying debris that could impede cleanup work are types of information collected to support the FS.

Work has begun to gather and analyze chemical, physical, land use and river use information that may influence cleanup methods for the site. The FS uses models to estimate things that can not be measured directly such as the relationship between sediment and tissue and long-term trends in chemical concentrations. The food web model and the fate and transport model are two key models being used to develop cleanup levels and model changes in sediment and tissue concentrations. Key information in the Feasibility Study will include:

- **Remedial Action Objectives and Preliminary Remediation Goals:** The risk assessment will provide the basis for refining the remedial action objectives and developing preliminary remediation goals (PRGs). A range of PRGs will be developed for several human health and ecological receptors, such as human health fish consumption and direct contact with sediments, and risks to fish, wildlife and benthic organisms.
- **Areas of Potential Concern (AOPC)** are being identified based on information from the results of the baseline ecological and human health risk assessments, preliminary remediation goals, modeling results and the spatial distribution of contamination.

- **Sediment Management Areas (SMA):** The AOPCs will be further refined into specific locations where cleanup actions are needed and then remedial alternatives will be developed and evaluated for each SMA.

Searching for Potentially Responsible Parties: Since the site was listed, 87 parties have received notice letters. In 2008, EPA sent approximately 250 information requests to current and past business and property owners within the Portland Harbor Study Area, seeking information about releases of hazardous substances or other information they had about businesses that may have contributed to contamination in the river. The agency is currently reviewing this information and has sent 15 General Notice Letters in 2009 based on the information received. The EPA will likely continue to issue additional notice letters and information requests in 2009 and beyond as part of its ongoing search and identification of parties that may have responsibility for paying for the cleanup.

Early Actions: A partial cleanup was completed at Port of Portland Terminal 4, Slip 3 and Wheeler Bay in 2008 through a combination of dredging and capping of contaminated sediment. The work also included feature to stabilize banks and enhance habitat. The second phase of the project, which will convert Slip 1 to a Confined Disposal Facility, was delayed to allow information from the harbor wide Feasibility Study to be included. The removal action completion report is available at: <http://yosemite.epa.gov/r10/cleanup.nsf/sites/t4>

Also in 2008, partial cleanup of nearshore sediments took place at the BP-Arco bulk fuel facility. This work was performed in conjunction with facility improvements to the seawall and took place under oversight by the Oregon Department of Environmental Quality.

Work planning continues for cleanup of highly contaminated sediments at the Arkema site. EPA and Legacy Site Services, LLC continue to work through a series of disputes related to the scope of the EE/CA and cleanup. Field work in support of the EE/CA is expected to begin in August 2009.

EPA and NW Natural expect to finalize an agreement this summer that will start the wheels rolling for an additional early action cleanup offshore of Gasco and Siltronic. A work plan will first establish the timeline for gathering data and completing an Engineering Evaluation and Cost Analysis that will present action alternatives. A course of action will be selected after public review and comment.

Triangle Park: In spring 2009, EPA finalized a consent decree that enabled the University of Portland to purchase Triangle Park. The settlement between EPA and Triangle Park LLC and another settlement between EPA and the University is providing funding for source control, cleanup and redevelopment of the Triangle Park uplands, so that it can return to productive reuse as athletic fields and a public waterfront trail.

US Moorings: EPA is working with the US Army Corps of Engineers to assess contamination and cleanup needs at this facility located adjacent to GASCO. Data collected as part of this investigation will be added to the Portland Harbor database.

Upland Source Control: The Oregon Department of Environmental Quality is the lead agency for the effort to stop ongoing releases to the river and clean up upland sites along the shore of the Willamette River. Most of the work is done through voluntary agreements with dozens of industries and property owners. Upland source control work is essential in order to avoid recontamination of cleaned up river sediments. For more information, check out the DEQ Portland Harbor web site at: <http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor>

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Natural Resource Damages: Trustees from state agencies, federal agencies and tribes are moving forward with studies to determine the injury to natural resources in Portland Harbor and developing a restoration plan. For additional information, visit the NOAA website:

<http://www.darrp.noaa.gov/northwest/portharbor/injury.html>

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Public Health: The Oregon Environmental Health Assessment Program (EHAP) is finishing up a public health assessment for recreational users of Portland Harbor and will publish these findings in 2009. <http://www.oregon.gov/DHS/ph/ehap/phsite.shtml>

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How the work gets done: Contractors for the Lower Willamette Group (LWG), a group of ten potentially responsible parties who under a legal agreement with EPA, collect and analyze data for the in-water portion of the site according to EPA-approved work plans, and prepare reports for EPA review and approval.

Going from data to decision: Draft documents, such as the Remedial Investigation and Feasibility Study are delivered to EPA by the LWG according to a negotiated schedule. The information is reviewed by EPA and intergovernmental partners for accuracy, completeness, and compliance with approved work plans and agency regulations and guidelines. These documents are also available for review by the public. EPA and the LWG will host community workshops to share information on key documents.

Proposed Plan: Based on the FS, EPA will write a Proposed Plan for the in-water portion of the site, which summarizes the cleanup alternatives and proposes a preferred course of action. Public comments will be solicited for the Proposed Plan. Your input to the proposed plan will be very important in selecting the best course of action.

From Plan to Cleanup: After carefully considering public input on the Proposed Plan, EPA will issue a Record of Decision (ROD) for Portland Harbor. After the decision, EPA negotiates with PRPs to design and construct the selected remedy.

For More Information about EPA Portland Harbor topics:

Visit the Portland Harbor website: <http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/ptldharbor>

Contact: Judy Smith, EPA Community Involvement Coordinator, 503-326-6994,
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Subscribe to the e-mail distribution list by sending a blank e-mail to:
EPA-NWOregon-subscribe@lists.epa.gov or contacting Judy Smith

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